SPIRIT

Missouri School-based Prevention Intervention and Resources Initiative

Eleventh Year Report

2012-2013

Missouri Department of Mental Health Division of Behavioral Health

This report was prepared for the State of Missouri by: Missouri Institute of Mental Health

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Executive Summary

Introduction – An Overview of the SPIRIT Project

The School-based Prevention Intervention and Resources IniTiative (SPIRIT), a project sponsored by the Missouri Department of Mental Health, Division of Behavioral Health (DBH), is now in the eleventh year of implementation. The initiative was launched in 2002 with the goals of preventing or delaying the use of alcohol and other drugs, reducing incidents of violence and improving overall school performance among students in high-risk school districts. This report highlights the impact of the SPIRIT project in the school year beginning in the fall of 2012 and ending in the spring of 2013.

Five school districts have participated in SPIRIT: Carthage R-IX, Hickman Mills C-I, Knox Co. R-1, New Madrid Co. R-1, and Ritenour. Criteria for inclusion in SPIRIT included: 1) more than 60% of students receiving free/reduced lunch; 2) standardized test scores below state average; 3) alcohol, tobacco, and other drug use above state average; 4) graduation rates lower that the state average; and 5) a high number of referrals to juvenile authorities. Each district varies in demographics such as the size of the population, the average student/teacher ratio, race/ethnicity distribution, location, resources and community setting (e.g., urban or rural). Prevention programming interventions were selected to meet the specific needs of each district. Student participation in SPIRIT has grown from 3,900 students in kindergarten through the ninth grade during Year 1 to 9,497 students in Year 11.

In the SPIRIT implementation model, a prevention agency is paired with each participating school district. Prevention specialists from the agencies, referred to as "providers" in this report, assist in facilitating evidence-based substance abuse and violence prevention programs, help to identify and respond to additional needs of some students for selective or indicated services, provide screening and referral services upon request, and offer resources and technical assistance as needed. Each district and school determines whether prevention specialists or classroom teachers implement the prevention programs.

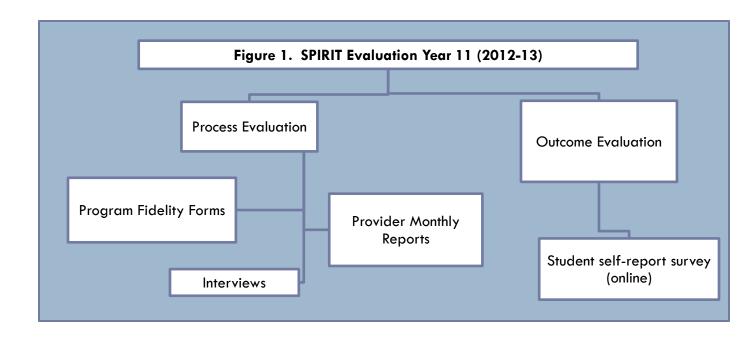
All prevention programs implemented are research-based and are listed on an approved list of prevention programs with demonstrated effects (e.g., the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP)). Each participating district has identified specific behavioral challenges within their student population, such as bullying, aggressive behavior and substance use, and particular prevention programs are selected to address these issues. Some changes have been made in the selection of the prevention programs as a response to changing issues in a particular district or school that needed to be addressed. Programs implemented in SPIRIT FY2013 included PeaceBuilders or Second Step in the elementary schools (supplemented by Too Good For Drugs in some districts), Second Step or Too Good For Drugs in the middle schools and Too Good For Drugs or Project Towards No Drug Abuse in the high schools.

Evaluation. Annual evaluation of the SPIRIT program is conducted by the Missouri Institute of Mental Health (MIMH), University of Missouri St. Louis (UMSL). The evaluation includes an annual self-report student survey, interviews with SPIRIT providers and school administrators, review of monthly reports submitted by the provider agencies, and analysis of program fidelity from forms documenting program implementation submitted by program implementers (Figure 1).

The self-report online survey completed by students in the $4^{th}-9^{th}$ grades includes questions about use of substances, attitudes toward substance use and perceived risk of use, aggression and problem behaviors, school performance and attitudes toward school, individual protective factors and perceptions of SPIRIT effectiveness. This information is used to assess the degree to which the main goals of the program are being met. One site with limited computer access in its elementary schools continues to complete paper and pencil surveys.

Throughout this report, SPIRIT student responses are compared to samples of Missouri and U.S. youth. Data for Missouri youth were drawn from the 2012 Missouri Student Survey (MSS), a statewide survey of 6th - 12th grade students attending public schools. The U.S. sample was drawn from youth who participated in the 2012 National Survey on Drug Use and Health (NSDUH).

All students in participating grades within the SPIRIT schools may receive prevention programming (n = 9,497 in the 2012-2013 school year). In order to participate in the evaluation, however, students must be in the 4th grade through 9th grades, have parental consent and also assent to participate. The consent rates vary by district, but across all SPIRIT sites 85.1% of the students eligible to participate in the evaluation were consented in Year 11. Each consented student was assigned a unique identification code used each year of their participation in order to match and track responses over time while maintaining confidentiality. A stratified random sampling technique was used to select 1,193 students to represent the SPIRIT population, in effect equalizing the influence of district, school, sex, and grade level.



Summary of Outcome Findings

Substance Use

Cigarettes:

- Age of Initiation:
 - Age of first use for SPIRIT youth was about the same as that of the Missouri sample.

Lifetime:

• A smaller percentage of youth in the 6th – 9th grade sample had smoked cigarettes in their lifetime than youth in Missouri or the U.S.

■ 30-day:

- The percentage of youth in the 6th 9th grades who reported using cigarettes in the past month has steadily declined from 2010 to 2013.
- A smaller percentage of $6^{th} 9^{th}$ grade SPIRIT students used cigarettes in the past 30 days compared to the average student in Missouri or the U.S.

Alcohol:

- Age of Initiation:
 - Males reported having first tried alcohol at a younger age than their female counterparts.
 - The age of initiation of alcohol use was slightly lower in the SPIRIT sample than in Missouri.

Lifetime:

• About 40% of 6th -9th grade students in the sample had used alcohol in their lifetime.

■ 30-day:

• The past month use of alcohol was reported by fewer youth in 2011 than in 2010 and has remained steady from 2011 to 2013.

o Marijuana:

- Age of Initiation:
 - On average, SPIRIT youth who had used marijuana in their lifetime began use at a slightly younger age than those in the Missouri sample.

Lifetime:

• The percentage of SPIRIT students who had used marijuana in their lifetime was slightly higher than that of Missouri.

■ 30-day:

- Males and females were equally as likely to use cigarettes, alcohol, or marijuana in the past month.
- The percentage of substance users in the past 30 days steadily increased at each jump in grade level. The greatest increase was among users of alcohol from the middle school to the high school level.

o Inhalants:

- Age of Initiation:
 - Age of the initiation for students in the SPIRIT sample was about the same as that for Missouri as a whole.
- Lifetime:
 - The percentage of students who used inhalants in their lifetime was lower for SPIRIT youth when compared to both the Missouri sample and the U.S.
- 30-day:
 - Use of inhalants in the past 30 days was lower for SPIRIT students than for those in Missouri but slightly higher than the U.S.

Table 1. SPIRIT, Missouri and U.S. Drug Use Comparisons					
		SPIRIT ¹	Missouri ²	US ³	
	Lifetime use	14.6	17.9	17.4	
Cigarettes	Past month (30-day)	3.7	7.8	6.6	
	Age of initiation	11.15	11.54	n/a	
	Lifetime use ⁴	40.1			
Alcohol	Past month (30-day)	11.1	11. <i>7</i>	12.9	
	Age of initiation	11.28	11.74	n/a	
	Lifetime use	11.8	10.6		
Marijuana	Past month (30-day)	5.3	5.6	7.2	
	Age of initiation	12.31	12.60	n/a	
	Lifetime use	3.8	5.6	6.5	
Inhalants	Past month (30-day)	1.2	2.7	0.8	
	Age of initiation	10.68	11.21	n/a	

Past Month Substance Use:

The past month use of alcohol, marijuana, and inhalants did not differ between the SPIRIT, Missouri, and U.S. samples.

- Cigarettes:
 - A smaller percentage of 6th 9th grade SPIRIT students used cigarettes in the past 30 days compared to the average student in Missouri or the U.S.
 - Of those who reported smoking cigarettes in the past 30 days, many reported that they don't usually smoke cigarettes or that they quit smoking. Over half said that they usually smoked five or fewer cigarettes on the days they smoke. Very few students reported smoking half a pack or more a day.

 $^{^{1}}$ SPIRIT, spring 2013, $6^{th} - 9^{th}$ grade, n = 867 (average age = 13.60); note: 9^{th} grade youth from the Knox Co. School District do not receive programming through SPIRIT and therefore are not included in the evaluation.

² Missouri Student Survey (MSS) 2012, $6^{th} - 9^{th}$ grade, n = 70,874 (average age = 13.53)

 $^{^{3}}$ National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

⁴ The lifetime alcohol use question in the SPIRIT survey is worded differently from the MSS and NSDUH; thus comparison data have not been included in this report. SPIRIT students were asked "How old were you the first time you had more than a sip or two of alcohol." The Missouri and U.S. questionnaires included more specific instructions: "We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, by a 'drink,' we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it." SPIRIT youth were not instructed to only count those times when they consumed an entire can, bottle, glass, or shot, but rather anything more than a sip or two.

Alcohol:

- Of those who reported drinking alcohol in the past 30 days, 9.4% stated they do not usually drink. The majority of the students reported they usually drank less than five drinks.
- Binge drinking is defined as having five or more drinks on the same occasion. A total of 5.0% of $6^{th} 9^{th}$ grade SPIRIT youth reported binge drinking in the past 30 days.
- The binge drinking rate among SPIRIT youth was lower than among Missouri youth.

Marijuana:

- Thirty-day marijuana use among SPIRIT students and the Missouri and U.S. samples was similar.
- The percentage of past month marijuana users decreased from 2012 to 2013, dropping back to the 2010 level.

Inhalants:

The percentage of inhalant users decreased from 2010 to 2013 such that in 2013 the percentage of students using inhalants was less than half of the percentage in 2010.

Table 2. Estimates of SPIRIT 30-day Substance Use (6th – 9th grade), 2010-2013						
2010 2011 2012 2013						
Cigarettes	6.9	4.4	4.1	3.7		
Alcohol	13.5	11.1	10.6	11.1		
Marijuana	5.5	5.6	6.5	5.3		
Inhalants	2.8	1.8	1.9	1.2		

Attitudes toward Substance Use

- Over 95% of all 4th 9th grade students did not think smoking made them look cool or more grown-up. In addition, most youth did not think that drinking alcohol let them have more fun. There were fewer youth in 2013 than in 2010 who expressed positive attitudes toward cigarette and alcohol use; however, attitudes did not change from 2012 to 2013.
- Youth thought that more adults used cigarettes and alcohol than teenagers, but thought that teenagers were slightly more likely to use marijuana.
- Youth in the 9th grade were more likely than younger students to think that most teenagers used alcohol, cigarettes and marijuana.
- O Ninth grade students were the most likely to think that most adults drank alcohol.
- Females were more likely than males to think that most teenagers used alcohol or marijuana.
- Students in grades 4-9 were more likely to indicate that they might use alcohol in the future compared to cigarettes or marijuana, with a little more than a fourth of the students agreeing with the statement, "I might use alcohol when I get older." Very few youth reported they might use cigarettes or marijuana when they get older.

- The largest increase in intention to use occurred between the middle and high school grades.
 Twice as many youth in the 9th grade indicated they might use marijuana compared to cigarettes.
- Over two-thirds of all students in grades 4-9 thought cigarettes and alcohol posed a moderate or great risk. A higher percentage of these youth thought using marijuana was risky.
- The majority of 6th 9th graders thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription posed a moderate to great risk, with use of methamphetamine the most risky.
- Youth in the 6th 8th grades were more likely than youth in other grade levels to think the use of cigarettes, alcohol, and marijuana were risky.
- The percentage of youth who think using cigarettes is risky increased from 2010 to 2013.
- The percentage of youth who perceived moderate or great risk in marijuana use declined slightly in 2012; however in 2013, the percentage increased, returning to the earlier level. Youth have consistently thought marijuana posed more risk of harm than cigarettes or alcohol.
- Over 90% of youth in the 6th-9th grades thought use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong; and over two-thirds of students thought the use of alcohol was either wrong or very wrong.
- As grade level increased, students were less likely to consider the use of substances to be wrong.
- The percentage of youth who thought alcohol use was wrong or very wrong has remained relatively consistent from 2010 to 2013.

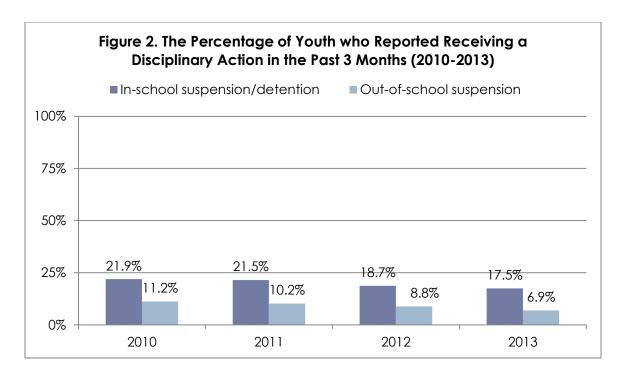
Problem Behavior

- Almost 40% of youth in the 4th 9th grade reported being harassed or bullied within the past three months.
- A similar percentage of youth reported both making fun of others and being made fun of by others. Only 12.6% of youth reported spreading rumors about others; however almost three times as many students reported others had spread rumors about them.
- The percentage of youth who reported being afraid of being beaten up was approximately the same as those who reported being in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student or being assaulted by someone else.
- Very few youth reported using the internet or a cell phone to embarrass or hurt another student, or conversely, being harassed by another student by internet or cell phone A very small percentage of youth reported using a weapon to threaten or bully another or having a weapon used against them in a similar manner.
- Students who reported they had been bullied or harassed at least one time in the past three
 months were more likely to report engaging in and experiencing almost every aggressive and
 problem behavior more frequently than those who had not been bullied.

- The percentage of youth who admitted spreading rumors about others and making fun of others increased from the 4th 5th grade level to the 6th 8th grade level. However, youth were equally as likely, regardless of grade level to report that others spread rumors about them or made fun of them.
- As grade levels increased, youth were less likely to report that others physically assaulted them.
 In fact, by 9th grade, youth were more likely to report physically assaulting someone else than having been assaulted.
- Males were more likely than females to report having been physically assaulted or physically assaulting others. Females were more likely to report that they were made fun of by others or had rumors spread about them. Interestingly, males and females were just as likely to report that they spread rumors or made fun of other people.
- From 2010 to 2013, the percentage of students who reported being harassed or bullied in the past three months increased. The percentage who reported being afraid of being beaten up, however, has remained consistent across this time period. Additionally, the percentage of youth reporting they were physically assaulted or had assaulted others has declined from 2010 to 2013.

School Performance

- Most students reported their average grades last school year were either A's or B's, slightly higher than in 2010. Regardless of grade, a greater percentage of females than males reported receiving mostly A's or B's.
- When they were asked how many whole days of school were missed in the past 30 days because they skipped or cut, fewer students in 2013 reported missing at least one day as compared to students in 2010. Fewer youth in 6th – 8th grades reported skipping school than youth in 4th – 5th grades.
- Approximately a quarter of students reported being sent to the office for disciplinary reasons in the past three months. Regardless of grade level, males were more likely than females to be sent to the office for this.
- Less than a fifth of students reported receiving in-school suspension or detentions. Again, males were more likely than females to receive in-school suspensions, regardless of grade level.
- Approximately 7% of students received an out-of-school suspension. As with other disciplinary actions, males were more likely than females to have received an out-of-school suspension.
- Students were most likely to agree or strongly agree they feel safe going to or from school and least likely to think teachers treated them fairly.
- o In general, the higher the grade level the less positive youth felt toward school. Happiness at school and feeling safe at school steadily decreased at each grade level.
- o From 2010 to 2013, in-school suspensions/detentions and out-of-school suspensions decreased.



Program Effectiveness

- When asked if they liked the program, the majority of students responded that they liked it at least a little. Similar to previous years, youth were most likely to report that the program helped them with resistance skills and that the time spent on the program was helpful. Students thought the program was least effective in helping others be nicer to them, with only slightly over half agreeing with that statement.
- o In general, as grade level increased youth were less likely to be satisfied with the program and to think it was effective. The largest drop in perceived effectiveness occurred at the 9th grade level, particularly in regard to the programs' ability to affect relationships and behavior.
- In general, males and females felt similarly about the program in terms of its appeal and effectiveness. However, males were more likely than females to think other kids were nicer to them because of the program.

Protective Factors

- Overall, almost three-quarters of the students either agreed or strongly agreed with statements about feeling empathy. Specifically, a high percentage of students reported being sad if witnessing an animal being hurt, feeling sad if someone was left out, and feeling bad if someone else got their feelings hurt. Regardless of grade level, there were fewer empathetic males than females who answered "agree" or "strongly agree" to every empathy statement.
- A greater percentage of 4th 9th grade youth reported making good decisions than thinking about their choices, how their decisions would affect others, and the consequences of their decisions.

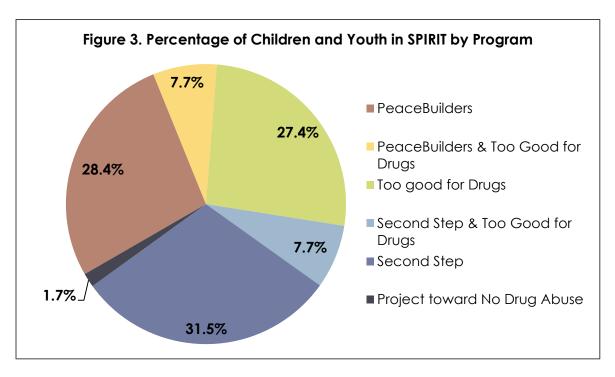
- Among youth in the 4th 8th grade youth, a greater percentage of females than males reported good decision making skills in all aspects measured.
- A large majority of students reported the presence of caring adults in their lives. However, a
 greater percentage of youth reported the presence of caring adults in their home than in school.

Recommendations:

- As in the past, it is recommended that prevention skills be stressed at times of transition between elementary and middle schools and between middle school and high school. Intentions to use substances as well as actual use increased at each grade level with the largest increase occurring between the middle and high school grades. It is important to reinforce these skills at the end of the school year as students prepare to move into the higher grade levels and again at the beginning of the new school year.
- Ninth grade appears to be a time of vulnerability, especially for females. At that time their grades drop, the number of days they skip school increase, their decision-making skills decline, and a lower percentage report caring adults in their lives. It is important to provide consistent support to all students, but to be particularly conscious of the needs of female students.
- The level of empathy remains steady from 4th-8th grades, but there is a drop in 9th grade indicating a need to reinforce sensitivity to the needs of others as students grow older.
- O Cigarette use has decreased from 2010 to 2013. It is important to continue stressing the importance of remaining smoke-free to maintain this lower level of use.
- Only 12.6% of youth reported spreading rumors about others; however almost three times as many students reported others had spread rumors about them.
- O Almost 40% of youth in the 4th 9th grade reported being harassed or bullied within the past three months. Those who reported they had been bullied or harassed even one time were more likely to report engaging in and experiencing almost every aggressive and problem behavior more frequently than those who had not been bullied. It is clear that reducing bullying behavior can help to reduce other problem behaviors.
- It is essential for classroom teachers and others in the schools to reinforce the skills taught in the prevention programs in order for them to have maximum effect.
- The percentage of inhalant users decreased from 2010 to 2013 such that in 2013 the percentage of students using inhalants was less than half of the percentage in 2010. It is important to continue to stress the fact that inhalants are poisons.
- The percentage of youth reporting they had tried alcohol in their lifetime increased from 2012 to 2013. It is important for prevention specialists to continue focusing on the consequences of alcohol use.

Chapter 1 - The SPIRIT Programs

As in previous years, information about program implementation was collected from interviews with prevention providers and school administrators, monthly reports from the prevention provider agencies, and fidelity forms completed by teachers of the research-based prevention programs. Following are brief descriptions of information gathered from these sources.



Participating School Districts

Carthage R-IX. In the Carthage School District, prevention specialists from the provider agency taught the programs in the elementary and middle schools. PeaceBuilders was taught in the five elementary schools (K -4^{th} grade), and in the middle school (5^{th} - 6^{th} grade), Too Good For Drugs supplemented PeaceBuilders. Health and physical education (PE) teachers taught Too Good For Drugs to the junior high school students (7^{th} – 8^{th} grade) and to 9^{th} grade students in the high school.

PeaceBuilders is a school climate program built on five basic principles that provide a common language to be used by everyone in the school community. These principles are: (1) praise people, (2) give up putdowns, (3) seek wise people, (4) notice and speak up about hurts I have caused, (5) right wrongs and (6) help others. Use of the PeaceBuilder pledge reinforces these concepts and the flexibility of the curriculum allows prevention specialists to creatively build lessons around issues that are particularly relevant to specific classrooms or to the school as a whole. Over the years, principals have cited the strength of having the common language of PeaceBuilders as a powerful tool in creating understanding within the school community, whether in relation to disciplinary actions or praise.

Too Good For Drugs (TGFD) supplemented PeaceBuilders in the middle school in order to provide alcohol, tobacco and other drug (ATOD) information and to teach resistance skills to the students. TGFD was also used in the junior high and high school.

The prevention specialists at Carthage have used creative ways to teach students about the application of principles presented in the curricula. They have also brought community awareness to SPIRIT through such activities as "Pinwheels for Peace," an event in which the children and youth created their own pinwheels or class pinwheels that were displayed outside of the schools.

Hickman Mills C-1. The 2012-2013 school year was another challenging year for Hickman Mills as the district continued to adjust to the changes in school configurations made two years ago and to additional budget cuts. The middle and junior high schools serve almost 1000 students each. The district has the additional pressure of operating with provisional accreditation. In light of these challenges and despite acknowledgement by the principals of the importance and contributions of SPIRIT prevention specialists in the middle and junior high schools, adequate time and/or space for implementation were not available to meet fidelity standards for program implementation.

During the first semester of this year, rather than implementing programming with all elementary students, prevention specialists from the provider agency worked with small groups of 4^{th} - 5^{th} grade students in the elementary schools. The participating students were identified by the teachers and counselors as needing more intensive behavioral intervention (indicated programming). In the middle school (6^{th} – 7^{th} grade) and 8^{th} grade of the junior high, Second Step was taught by prevention specialists to all of the students throughout the year. Project Towards No Drug Abuse (TND) was taught to 9^{th} grade students.

Knox County R-I. In Knox School District, classroom teachers and prevention specialists coordinated implementation of PeaceBuilders in the elementary school ($K - 5^{th}$ grade). A prevention specialist also taught Second Step in the middle school ($6^{th} - 8^{th}$ grade). The mentoring program for high school freshman, begun during Year 8, continued to help students transition into the high school. The mentoring program is intended to reduce the number of students dropping out of school. The district also has implemented Positive Behavioral Interventions and Supports (PBIS) and finds that this program interfaces well with SPIRIT. In addition to teaching the curriculum, the prevention specialists respond to requests by the classroom teachers to address specific prevention topics such as bullying, meet with small groups of students around specific issues and meet one-on-one with students when requested by teachers.

Prevention specialists have been actively involved with community members and organizations in support of the prevention efforts related to SPIRIT. School events like Donuts for Dads and Muffins for Moms have been supported by the community and likewise, the providers have actively supported community events.

New Madrid County R-I. PeaceBuilders was implemented in all three elementary schools (K - 5th grade) in the New Madrid School District. A prevention specialist taught PeaceBuilders lessons once a month in each grade of the elementary schools, and classroom teachers reinforced the lessons. School-wide activities, such as daily reciting of the PeaceBuilder pledge reinforced the PeaceBuilder message. A prevention specialist also taught Second Step at the middle school (6th-8th grades) and TND to 9th grade students at the high school. To strengthen the impact of the substance use prevention messages at each school level, supplemental lessons about alcohol and other drugs were provided. The elementary school curriculum was supplemented with lessons from the National Institute on Drug Abuse (NIDA) "Brain Power" program, middle school lessons were supplemented with the Totally True Facts about Drugs Action Pack, and high school lessons were taken from The Truth about Drugs from the Foundation for a Drug Free World.

Prevention specialists have worked with teachers in each of the schools to create events and innovative activities to reinforce SPIRIT. In the elementary schools, for instance, both students and teachers are recognized and given awards as PeaceBuilders to provide incentive to the children to use the skills they are learning through the program. The providers also offer activities to parents to involve them in understanding and reinforcing the programs.

Ritenour. In the Ritenour School District, prevention specialists taught Second Step lessons supplemented by TGFD in all six elementary schools ($4^{th} - 5^{th}$ grade). TGFD was taught by the specialists in the two middle schools ($6^{th} - 8^{th}$ grade), and to 9^{th} grade students in the high school. Students seem to enjoy the creative teaching methods used by program providers. Additionally, the prevention specialists provide materials to the teachers so that they are able to reinforce the lessons from the curriculum thereby increasing the effectiveness of the messages that have been taught.

Principals in the Ritenour district have been particularly appreciative of the way that prevention specialists have become part of the school and worked with small groups of students who need additional assistance in developing appropriate behaviors. They expressed the feeling that SPIRIT has made essential contributions to improvements in behavior and school climate. The Ritenour District also uses PBIS and finds that SPIRIT works well in conjunction with that program.

Fidelity Documentation and Interviews

Fidelity forms documenting implementation details were completed by each program implementer. The number of students, the specific curriculum lesson taught, the number of minutes, and the frequency of implementation were recorded as were any changes that the teacher made to the lessons (lengthened, shortened, material added, made more age or culturally appropriate). The most frequent modifications made were the addition of approved supplemental substance use prevention materials.

Principals from all of the districts have expressed appreciation for being included in the SPIRIT program throughout the years of its existence. Most comment on the ability of the prevention specialists to effectively work with the students in both program implementation and small group work, and cite examples of ways in which SPIRIT positively impacted their students and their schools. Following are some of those comments:

"[I am] wholeheartedly convinced that the SPIRIT program plays a huge, huge part in [the students] being who they are. It's been engrained in them from an early age – the importance of making good decisions."

—District Superintendent

"We can see the difference in behavior between students who have grown up receiving SPIRIT and those who haven't."

—High School Principal

"The students are more comfortable talking to the SPIRIT staff than they are to me. When issues are continually addressed and discussed it makes a difference." —Middle School Principal

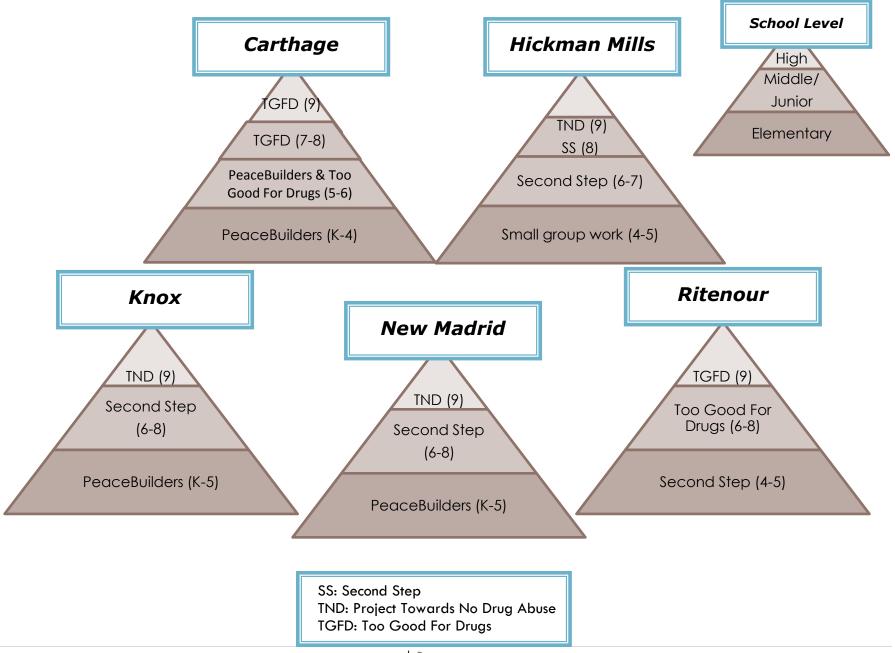
"SPIRIT just seems to be part of who we are. It is part of our personality now..."

-Elementary School Principal

SPIRIT has become even more important each year in helping to build protective factors against substance use and violence as budget cuts have caused reductions in staff, larger classes and fewer resources. These problems are in addition to lack of parental involvement, poverty, transiency, and community violence.

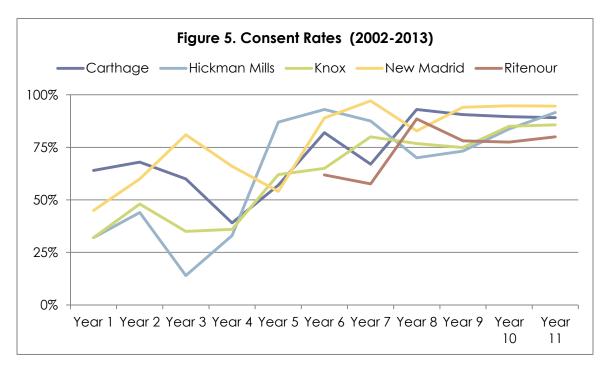
The following figure displays the prevention program being implemented in each district and grade level.

Figure 4.Program Implementation by Site, Year 11 (2012-2013)



Chapter 2 - Sample Selection and Demographics

Students in grades 4-9 who received parental consent and assented to participate were eligible to be included in the evaluation. There were 7,251 students in 4^{th} - 9^{th} grades and of this number, 6,170 received parental consent to participate in the evaluation, achieving an increase in consent rate from 82.5% in Year 10 to 85.1% in Year 11. All five school districts have a consent rate at or above 80%.

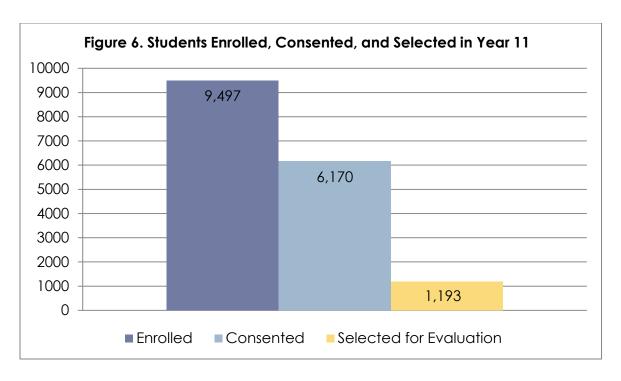


Sample Selection

From a total pool of consented students who assented to participate in the evaluation and completed a self-report survey, a sample representative of the demographic characteristics of the participating districts was drawn. This sample was used to assess the SPIRIT program in its entirety without bias or influence from any particular school district, school building, sex, or grade level. The final sample represented every participating school within each school district.⁵ Fifty male and 50 female students from each grade level group (4th-5th, 6th-8th, 9th) were selected from each of the districts wherever possible. The final evaluation sample size was 1,193 students. The statistics in the remainder of this report reflect the behaviors and attitudes of these students.

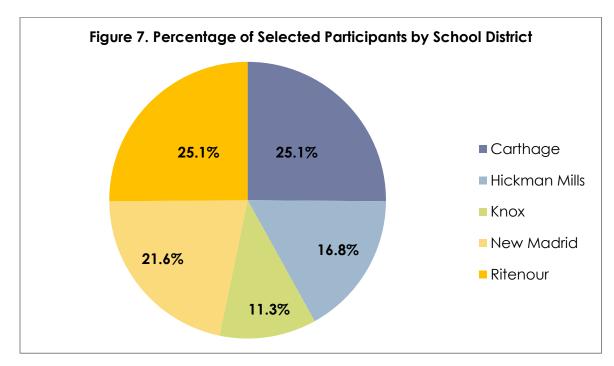
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⁵ School districts have varying demographic profiles, use different provider agencies, and in many cases implement different prevention programs. Considering these factors, the data set was post-stratified through random sampling to provide equal influence to each school district and within each district. Within each school district, each school, grade, and sex was represented equally.

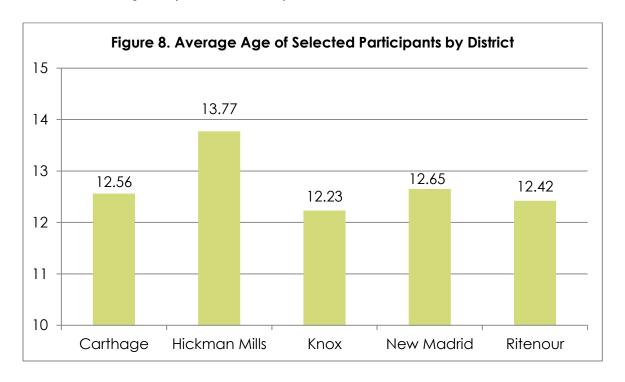


Demographic Distributions of the Evaluation Sample

The Knox School District accounted for only 11.3% of participants in the evaluation because of its size and because 9^{th} grade students did not receive programming through SPIRIT. The Hickman Mills School District accounted for only 16.8% of the sample due to a reduced level of implementation in the $4^{th}-5^{th}$ grades.



The average age of the participants ranged from 12.23 to 13.77 years of age. The Hickman Mills students were approximately a year older than the students from the other participating districts since there were no 4^{th} or 5^{th} grade youth in that sample.



The racial and ethnic profiles of each district were distinct from one another. The majority of youth in the Knox Co. School District were White (94.8%), but every other district has a more diverse population. The Carthage School District was mostly White (61.3%) and Latino (29.3%). The New Madrid School District was mostly White (71.7%) and Black (23.3%). The Hickman Mills School District was mostly Black (77.0%) with a small number of White (10.0%) and Latino (9.5%) participants. The Ritenour School District was the most diverse, with almost equal percentages of White (40.3%) and Black (36.3%) participants, and some Latino (17.7%) representation as well.

Table 3. Race and Ethnicity of Selected Participants by District					
	Carthage	Hickman Mills	Knox	New Madrid	Ritenour
Hispanic/Latino (of any race)	29.3	9.5	0.0	1.6	1 <i>7.7</i>
Not Hispanic or Latino					
White/Caucasian	61.3	10.0	94.8	71.7	40.3
Black/African-American	2.3	77.0	0.7	23.3	36.3
Native American/Alaskan Native	3.7	1.0	3.7	1.6	0.7
Asian	1.3	1.0	0.0	0.8	3.7
Native Hawaiian or Other Pacific Islander	1.0	0.5	0.0	0.0	0.3
Other (not otherwise specified)	1.0	1.0	0.7	1.2	1.0

The SPIRIT sample was more diverse than either the Missouri or U.S. samples. There was a greater percentage of Black and Latino youth and fewer White youth in SPIRIT in comparison to the Missouri sample, whereas the U.S. sample had a greater representation of Latino youth than the SPIRIT sample.

Table 4. Race and Ethnicity of Selected SPIRIT, Missouri, and U.S. Samples					
	SPIRIT ⁶	Missouri ⁷	United States ⁸		
Hispanic/Latino (of any race)	13.7	6.5	19.8		
Not Hispanic or Latino					
White/Caucasian	53.5	77.3	58.1		
Black/African-American	27.7	10.1	13.0		
Native American/Alaskan Native	2.0	1.6	1.2		
Asian	1.6	2.1	0.4		
Native Hawaiian or Other Pacific Islander	0.4	0.2	3.2		
Other (not otherwise specified)	1.0	2.2	4.4		

 $^{^{6}}$ SPIRIT Survey (2013), $4^{th}-9^{th}$ grade, selected participants

⁷ Missouri Student Survey (2012), 4th – 9th grades

 $^{^8}$ National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

Chapter 3 - Substance Use

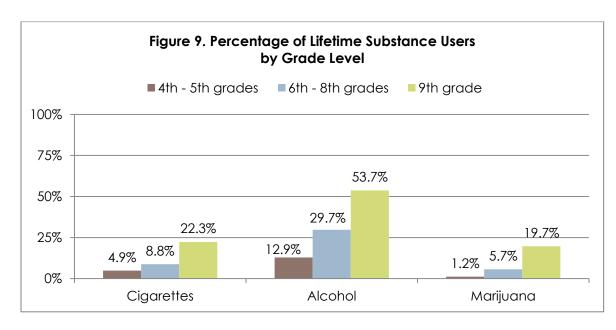
The following chapter presents self-reported use of substances by students in the $4^{th}-9^{th}$ grades. In general, the percentage of youth using substances is reported in the following grade groupings: $4^{th}-5^{th}$, $6^{th}-8^{th}$, and 9^{th} . Wherever possible, substance use of $6^{th}-9^{th}$ grade students in the SPIRIT program was compared to use among youth of similar age or grade levels as reported in the 2012 MSS and the 2012 NSDUH. Unless otherwise specified, tables and charts show reported substance use for $6^{th}-9^{th}$ grade students only.

Lifetime Substance Use

Lifetime Substance Use by Grade. Students in $4^{th} - 5^{th}$ grades were asked whether they had ever, even once, smoked part or all of a cigarette, had more than a sip or two of alcohol, or used marijuana. Students in the $6^{th} - 9^{th}$ grade were asked how old they were the first time they smoked part or all of a cigarette, had more than a sip or two of alcohol, used marijuana or a variety of other drugs.

Among the selected $4^{th} - 9^{th}$ grade sample, 12.0% reported smoking a cigarette, 32.7% reported ever having had more than a sip or two of alcohol and 8.9% reported using marijuana in their lifetime.

As grade level increased, a greater percentage of youth reported using cigarettes, alcohol, or marijuana at least once. The largest increase in the percentage of cigarette and marijuana users occurred between middle school (6th-8th) and high school (9th) whereas the percentage of alcohol users increased among all grade levels.



Lifetime Substance Use Comparisons with State and National Samples. A smaller percentage of youth in the $6^{th} - 9^{th}$ grade sample had smoked cigarettes in their lifetime (14.6%) than youth in Missouri (17.9%) or the U.S. (17.4%). The use of marijuana, and ecstasy in one's lifetime was similar among SPIRIT and Missouri samples; however, a smaller percentage of SPIRIT youth had used inhalants (3.8%) than youth in Missouri (5.6%) or the U.S. (6.5%). Fewer youth in SPIRIT used prescription drugs without a prescription (3.6%) than their counterparts elsewhere in Missouri (6.7%).

Table 5. Estimates of SPIRIT, Missouri, and U.S. Lifetime Substance Use (6 th — 9 th grade)					
	SPIRIT Total ⁹	MO ¹⁰	U.S. ¹¹		
Cigarettes	14.6	17.9	17.4		
Alcohol (more than a sip)12	40.1				
Alcohol (once or twice a month)	9.8		17.0		
Marijuana	11.8	10.6			
Ecstasy	1.7	1.6			
Methamphetamine	1.4	1.1			
Inhalants	3.8	5.6	6.5		
Prescription Drugs without Rx	5.3	6.7			

Lifetime Substance Use by Sex. There were no differences between the percentage of males and females who reported having ever used cigarettes, alcohol or marijuana in their lifetime.

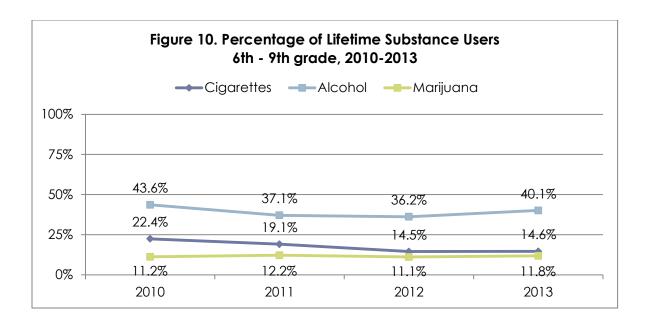
Lifetime Substance Use by Year. The percentage of youth who had used cigarettes or marijuana remained consistent from 2012 to 2013. Over the course of four years, however, the percentage of cigarette users decreased dramatically from 22.4% in 2010 to 14.6% in 2013. There was little effect on the use of marijuana, with the percentage of users remaining relatively unchanged over the four-year period. However, there was an increase from 2012 to 2013 in the percentage of youth reporting they had tried alcohol in their lifetime.

 $^{^{9}}$ SPIRIT, spring 2013, $6^{th} - 9^{th}$ grade, n = 867 (average age = 13.60); note: 9^{th} grade students from the Knox Co. School District do not receive programming through SPIRIT and therefore are not included in the evaluation.

¹⁰ Missouri Student Survey (MSS) 2012, $6^{th} - 9^{th}$ grade, n = 70,874 (average age = 13.53)

 $^{^{11}}$ National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

¹² Lifetime alcohol use cannot be compared between the SPIRIT, MSS, and NSDUH surveys. Please see footnote 4 for further explanation.



Age of Initiation

Students in $6^{th} - 9^{th}$ grade were asked to indicate how old they were the first time they used alcohol, cigarettes, and other drugs.

Age of Initiation of Substance Use Comparisons with State Samples. On average, SPIRIT youth who had used marijuana in their lifetime began use at a slightly younger age than those in the Missouri sample.

Table 6. Comparison Between Estimates of SPIRIT and Missouri Age of Initiation					
SPIRIT Total ¹³ MO ¹⁴					
Cigarettes	11.15	11.54			
Alcohol (more than a sip)15	11.28				
Alcohol (once or twice a month)	12.49				
Marijuana	12.31	12.60			
Ecstasy	11.53				
Methamphetamine	10.6 <i>7</i>				
Inhalants	10.68	11.21			
Prescription Drugs without Rx	12.24				

 $^{^{13}}$ SPIRIT, spring 2013, $6^{th} - 9^{th}$ grade, n = 867 (average age = 13.60); note: 9^{th} grade students from the Knox Co. School District do not receive programming through SPIRIT and therefore are not included in the evaluation.

¹⁴ Missouri Student Survey (MSS) 2012, $6^{th} - 9^{th}$ grade, n = 70,874 (average age = 13.53)

¹⁵ Lifetime alcohol use cannot be compared between the SPIRIT, MSS, and NSDUH surveys. Please see footnote 4 for further explanation.

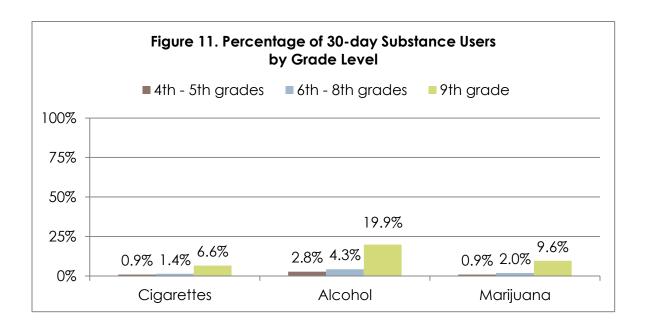
Age of Initiation by Sex. Males reported first trying alcohol at a younger age than their female counterparts. Too few females reported use of ecstasy and methamphetamine to accurately determine age of first use.

Table 7. Age of Initiation by Sex					
	Males	Females			
Cigarettes	11.21	11.10			
Alcohol (more than a sip)	10.86	11.69			
Alcohol (once or twice a month)	12.41	12.56			
Marijuana	12.06	12.56			
Ecstasy ¹⁶	13.36				
Methamphetamine ⁸	10.13				
Inhalants	10.79	10.50			
Prescription Drugs without Rx	12.19	12.30			

Past Month (30-day) Substance Use

Students in $4^{th} - 9^{th}$ grade were asked whether they used substances in the month prior to taking the survey. Among the selected sample, 2.9% reported smoking a cigarette, 8.8% consuming alcohol, and 4.1% using marijuana in the past 30 days.

30-day Substance Use by Grade Level. The percentage of youth who reported use of substances within the past 30 days steadily increased at each grade level. The greatest increase was among users of alcohol from the middle school to the high school level.



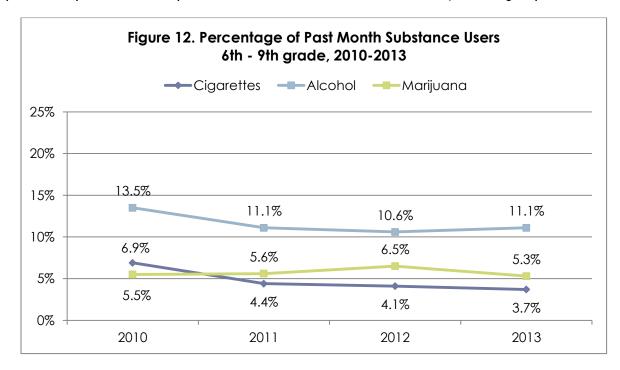
¹⁶ Too few females reported using ecstasy or methamphetamines to get an accurate estimate of age of first use.

30-day Substance Use Comparisons with State and National Samples. A smaller percentage of 6^{th} – 9^{th} grade SPIRIT students used cigarettes in the past 30 days compared to the average student in Missouri or the U.S. The past month use of alcohol, marijuana, and inhalants did not differ among the SPIRIT, Missouri, and U.S. samples.

Table 8. Estimates of SPIRIT, Missouri, and U.S. 30-day Substance Use (6 th — 9 th grade)					
SPIRIT Total ¹⁷ MO ¹⁸ U.S. ¹⁹					
Cigarettes	3.7	7.8	6.6		
Alcohol	11.1	11. <i>7</i>	12.9		
Marijuana	5.3	5.6	7.2		
Inhalants	1.2	2.7	0.8		

30-day Substance Use by Sex. Males and females were equally as likely to use cigarettes, alcohol, or marijuana in the past month.

30-day Substance Use by Year. The percentage of youth in the $6^{th} - 9^{th}$ grades who reported using cigarettes in the past month steadily declined from 6.9% in 2010 to 3.7% in 2013. Past month alcohol use was reported by fewer youth in 2011 than in 2010 and has remained steady from 2011 to 2013. The percent of past month marijuana users decreased from 2012 to 2013, returning to pre-2012 levels.



¹⁷ SPIRIT, spring 2013, $6^{th} - 9^{th}$ grade, n = 867 (average age = 13.60); note: there were no 9^{th} grade youth participating from the Knox Co. School District.

¹⁸ Missouri Student Survey (MSS) 2012, $6^{th} - 9^{th}$ grade, n = 70,874 (average age = 13.53)

¹⁹ National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

Cigarette and Alcohol Use: Extent and Circumstances

SPIRIT students in $6^{th}-9^{th}$ grade were asked how many cigarettes they smoked in the past 30 days. Of those who reported smoking cigarettes, many responded that they did not usually smoke cigarettes (9.4%) or that they quit smoking (15.6%). Over half (59.4%) said that they usually smoked five or fewer cigarettes on the days they smoked. Only five students (15.6%) reported smoking half a pack or more a day.

The lifetime binge drinking rate among SPIRIT youth (5.0%) was lower than among Missouri youth (7.4%).

Students were also asked how many drinks they had when they drank, if they binge drank in the past 30 days, if they were drunk or high at school in the past three months, if they rode in a vehicle when the driver was drinking, and whether they drove while drunk.

Of those who reported drinking alcohol in the past 30 days, 9.4% stated they do not usually drink. The majority (74.0%) reported usually drinking less than five drinks.

Students were asked to report if they had participated in binge drinking. Binge drinking is defined as having five or more drinks on the same occasion in the past 30 days. A total of 5.0% of $6^{th}-9^{th}$ grade youth reported binge drinking

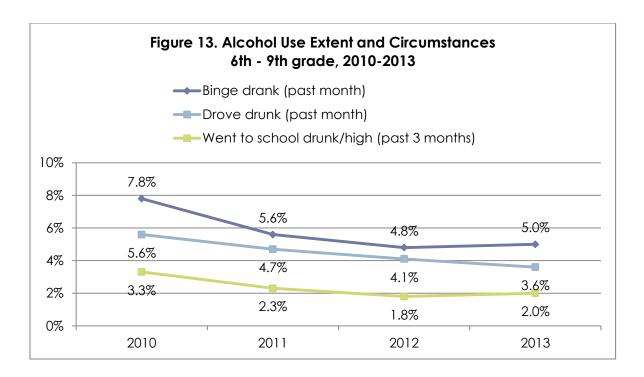
Among all $6^{th} - 9^{th}$ grade youth, 3.6% reported being drunk or high at school in the past three months; however, among youth who reported using alcohol or other drugs in the past 30 days, incidences of being drunk or high at school were much higher. For example, 21.9% of youth who used alcohol and almost half (45.7%) of youth who used marijuana in the past 30 days reported being drunk or high at school in the past three months.

Students were also asked to indicate their experience with drunk driving, both as a driver and a passenger. Among all $6^{th} - 9^{th}$ grade students, 2.0% reported driving a car when they had been drinking. A greater percentage (14.4%) reported that they rode in a car with a driver who had been drinking.

Table 9. Percentage of Youth Who Rode With a Driver Who Had Been Drinking or Drove Themselves After Drinking Within the Past Month (6 th — 9 th Grade)					
Total Sample (regardless of reported alcohol use) Among Lifetime Alcohol Users Users Users					
Rode in a vehicle with a driver who had been drinking	14.4	35.5	44.8		
Drove after drinking alcohol	2.0	4.9	12.6		

Substance Use Extent and Circumstances by Sex. Males and females are equally as likely to binge drink, ride in a car with a drunk driver, or drive drunk themselves.

Substance Use Extent and Circumstances by Year. The percentage of youth in the $6^{th} - 9^{th}$ grade who reported binge drinking, driving drunk, and going to school either drunk or high decreased from 2010 to 2013. The percentage of students who drove with someone who had been drinking decreased from 2010 and has remained steady since then.



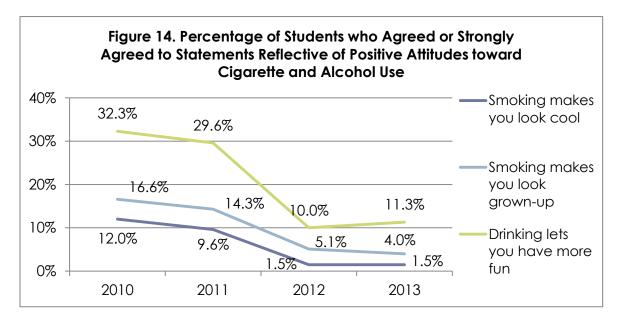
Summary

- Among the selected 4th 9th grade sample, 12.0% reported smoking a cigarette, 32.7% reported ever having more than a sip or two of alcohol and 8.9% reported using marijuana in their lifetime.
- As grade level increased, a greater percentage of youth reported use of cigarettes, alcohol, or marijuana at least once. For marijuana and cigarettes, the largest increase in the percentage of users occurred between middle school (6th-8th) and high school (9th); for alcohol, usage increased among all grade levels.
- A smaller percentage of youth in the 6th 9th grade sample smoked cigarettes in their lifetime than youth in Missouri or the U.S. The use of marijuana, and ecstasy in one's lifetime was similar among SPIRIT and Missouri samples; however, a smaller percentage of SPIRIT youth used inhalants than youth in Missouri or the U.S. Fewer youth in SPIRIT used prescription drugs without a prescription than their counterparts elsewhere in Missouri
- The percentage of youth who had used cigarettes or marijuana in their lifetime remained consistent from 2012 to 2013. The percent of past month marijuana users decreased from 2012 to 2013, returning to 2010 levels.
- Males reported first trying alcohol at a younger age than their female counterparts.
- On average, SPIRIT youth who had used marijuana in their lifetime began use at a slightly younger age than those in the Missouri sample.
- A smaller percentage of 6th 9th grade SPIRIT students used cigarettes in the past 30 days compared to the average student in Missouri or the U.S. The past month use of alcohol, marijuana, and inhalants did not differ from the SPIRIT, Missouri, and U.S. samples.

- The percentage of the student sample who reported use of substances within the past 30 days steadily increased at each grade level. The greatest increase was among users of alcohol from the middle school to the high school level.
- From 2010 to 2013, the percentage of cigarette users decreased. Additionally, the percentage
 of youth in the 6th 9th grades who reported using cigarettes in the past month steadily declined
 2010 to 2013.
- The past month use of alcohol was reported by fewer youth in 2011 than in 2010 and has remained steady from 2011 to 2013. There was, however, an increase from 2012 to 2013 in the percentage of youth who reported trying alcohol for the first time.

Chapter 4 - Substance Use Attitudes

Students in the $4^{th}-9^{th}$ grades were asked to report the extent to which they thought most teenagers and adults used drugs, whether they might use drugs when they were older, how risky drugs were to the health of those who use, and how wrong they thought the use of drugs was. Over 95% of all $4^{th}-9^{th}$ grade students disapproved of cigarette use in that they did not think smoking made them look cool or more grown-up. In addition, most youth (88.7%) did not think that drinking alcohol let them have more fun. There were many fewer youth in 2013 than in 2010 who expressed positive attitudes toward cigarette and alcohol use; however, attitudes did not change from 2012 to 2013.

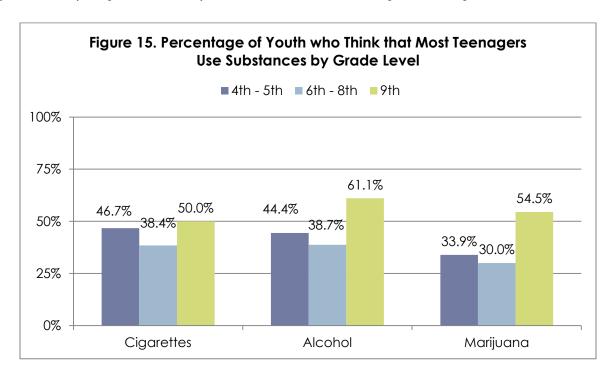


Substance Use Norms

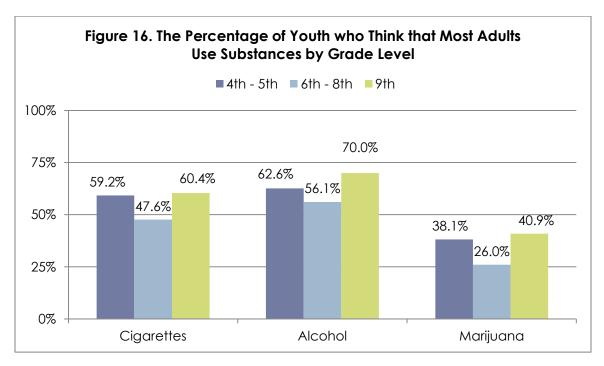
A large percentage of youth (39-47%) reported that they thought most teenagers used cigarettes, alcohol and marijuana. Similarly a large percentage of youth (34-55%) thought most adults used these substances. Youth thought that more adults used cigarettes and alcohol than teenagers, but thought that teenagers were slightly more likely to use marijuana.

Table 10. Youths' Perception of Substance Use among Adults and Teenagers (Response to the statement: "Most teenagers/adults use 'substance'.")							
Strongly Somewhat Somewhat Strongly Disagree Disagree Agree Agree							
Teenager Use	Cigarettes	30.6	25.1	34.5	9.8		
	Alcohol	28.7	24.0	36.0	11.3		
	Marijuana	38.4	22.8	27.1	11.7		
	Cigarettes	24.8	20.4	37.7	1 <i>7</i> .1		
Adult Use	Alcohol	23.3	14.5	41.2	21.0		
	Marijuana	38.5	27.4	23.3	10.8		

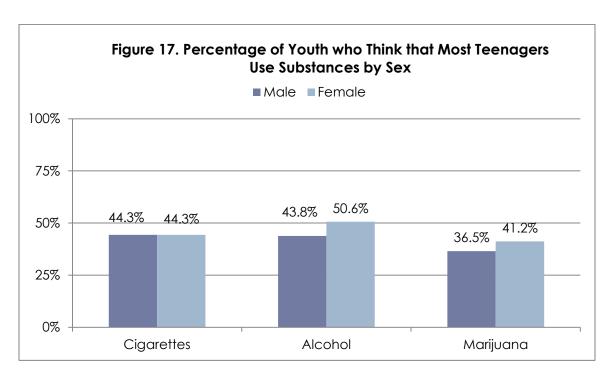
Substance Use Norms by Grade Level. Youth in the 9^{th} grade were more likely than younger students to think that most teenagers used alcohol and marijuana. Middle school students ($6^{th} - 8^{th}$ grade) were less likely than both younger and older youth to think that most teenagers used cigarettes.



Youth in the 9^{th} grade were the most likely to think that most adults drank alcohol. Youth in the $6^{th} - 8^{th}$ grades were less likely than all others to think that adults used any substance.



Substance Use Norms by Sex. Females were more likely than males to think that most teenagers used alcohol or marijuana. There were no differences between males and females in perceptions of adult substance use. There were no differences between males and females in perceptions of adult substance use.

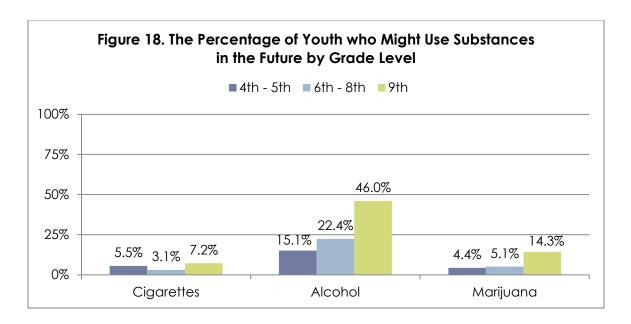


Substance Use Intentions

Students in grades 4-9 indicated they were more likely to use alcohol in the future than cigarettes or marijuana, with 27.8% of students agreeing with the statement, "I might use alcohol when I get older." Very few youth reported they might use cigarettes (5.1%) or marijuana (7.8%) when they get older.

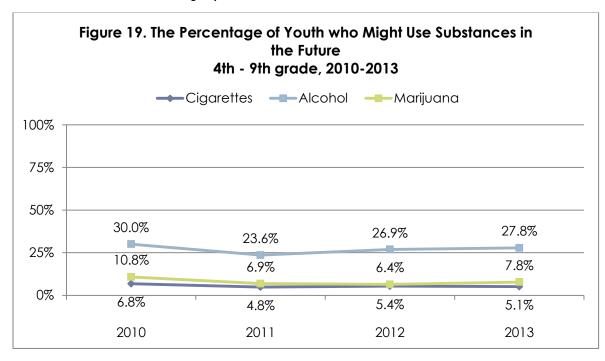
Table 11. Youths' Intentions to Use Substances (Response to the statement: "I might use 'substance' when I get older.")					
Strongly Somewhat Somewhat Strongly Disagree Disagree Agree Agree					
Cigarettes	84.0	10.9	4.3	0.8	
Alcohol	55.0	1 <i>7</i> .2	22.7	5.1	
Marijuana	81.8	10.3	4.7	3.1	

Substance Use Intentions by Grade Level. The largest increase in intentions to use occurred between the middle and high school grade levels. Twice as many youth in the 9th grade indicated they might use marijuana than those who indicated they might smoke cigarettes. Almost half of 9th grade students indicated that they might drink in the future, almost four times the number who said they might use marijuana and more than five times more than those who said they might smoke cigarettes. A similar percentage of 9th graders said they had smoked in the past 30 days (6.6%) and might smoke in the future (7.2%). A higher percentage of 9th graders said they might smoke in the future (14.3%) than use marijuana currently (9.6%). A much larger percentage of 9th graders said they might drink in the future (46.0%) than those who have had at least one drink in the past 30 days (19.9%).



Substance Use Intention by Sex. Males and females were equally as likely to report they might use cigarettes, alcohol, or marijuana in the future.

Substance Use Intentions by Year. Intentions to use alcohol decreased in 2011 and remained constant through 2013. The percentage of students who said they might use marijuana in the future also decreased in 2011 but has risen slightly since 2012.



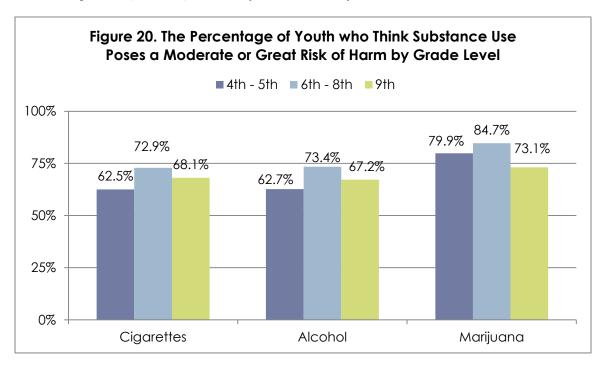
Risk of Harm from Substance Use

All participating students in grades $4^{th} - 9^{th}$ were asked how much they thought people risked harming themselves physically or in other ways if they used cigarettes, alcohol, and marijuana. Youth in grades $6^{th} - 9^{th}$ were also asked about the risk in using several additional drugs. Over 68% of all students thought cigarettes and alcohol posed a moderate or great risk if used. A higher percentage (79.7%) thought

using marijuana was risky. Among those in $6^{th} - 9^{th}$ grades, the majority (88-91%) thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription posed a moderate to great risk. The use of methamphetamine was perceived to be most risky.

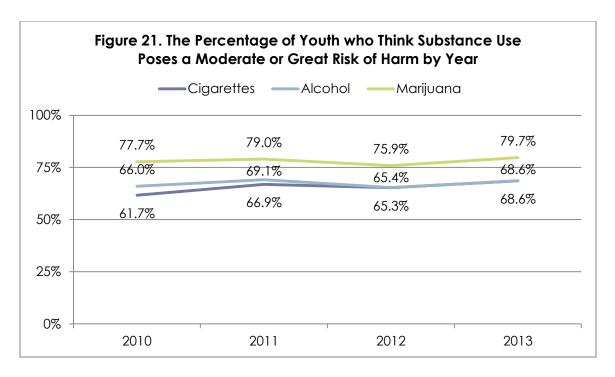
Table 12.Youths' Perception of Risk of Harm from Using Substances (4 th – 9 th grade)							
	No Risk	Slight Risk	Moderate Risk	Great Risk			
Smoke part or all of a cigarette	10.1	21.3	28.8	39.8			
Drink any type of alcohol	8.4	23.0	32.1	36.5			
Use Marijuana	10.4	9.8	19.4	60.3			
(6 th – 9 th grade)							
Use ecstasy occasionally	5.4	6.7	18.0	69.9			
Use meth occasionally	5.1	3.8	11.9	79.2			
Use inhalants	5.3	5.1	16.6	72.9			
Use prescription drugs w/out Rx	5.2	5.5	1 <i>7</i> .5	71.8			

Risk of Harm by Grade Level. Youth in $6^{th} - 8^{th}$ grades were more likely than youth in other grades to think the use of cigarettes, alcohol, and marijuana were risky.



Risk of Harm by Sex. A greater percentage of females than males perceived the use of cigarettes as risky.

Risk of Harm by Year. From 2010 to 2013, the perception of risk associated with alcohol use has remained relatively consistent. The percentage of youth who think using cigarettes is risky has increased from 61.7% in 2010 to 68.6% in 2013. The percentage of youth who perceived moderate or great risk in marijuana use declined slightly in 2012; however in 2013, the percentage increased, returning to earlier level. Youth have consistently thought marijuana posed more harm than cigarettes or alcohol.

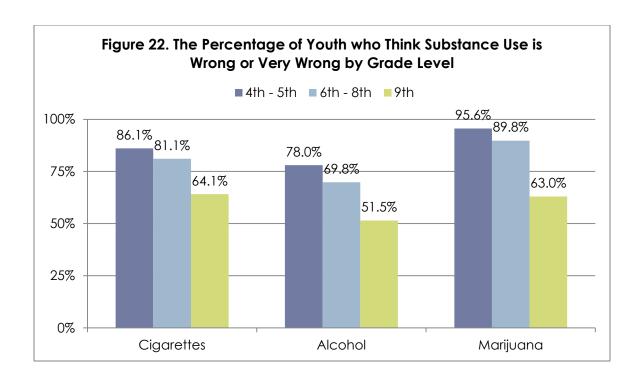


Disapproving Attitudes toward Substance Use

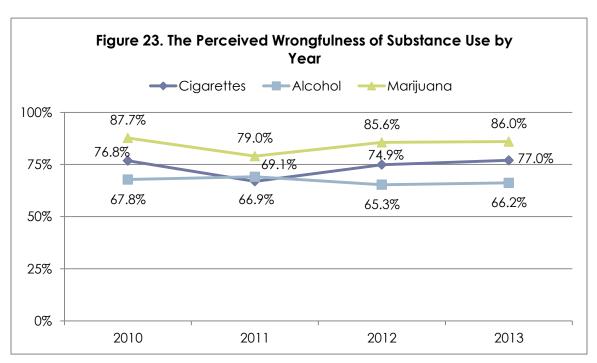
The majority of SPIRIT students thought that the use of any substance was wrong. Alcohol was considered the most acceptable with only 66.2% reporting that they thought it was either wrong or very wrong to drink alcohol. Over 90% of youth in the 6^{th} - 9^{th} grades thought use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong.

Table 13. Youths' Perception of Wrongfulness of Substance Use (4 th – 9 th grade)						
	Not Wrong at All	A Little Bit Wrong	Wrong	Very Wrong		
Smoke part or all of a cigarette	7.2	15.8	31.8	45.2		
Drink any type of alcohol	11.5	22.3	28.2	38.0		
Use Marijuana	5.8	8.1	16.2	69.8		
(6 th – 9 th grade)						
Use ecstasy occasionally	3.4	5.7	17.7	73.3		
Use meth occasionally	2.7	3.6	13.1	80.7		
Use inhalants	2.9	3.7	16.6	76.8		
Use prescription drugs w/out Rx	3.1	4.5	17.7	74.6		

Disapproving Attitudes by Grade Level. As grade level increased, students were less likely to consider the use of substances as wrong. Alcohol use was considered to be the least wrong by youth in all grade levels. Approximately half (51.5%) of youth in 9th grade thought using alcohol was wrong in contrast to over three-fourths (78%) of youth in grades 4-5.



Disapproving Attitudes by Year. The percentage of youth who thought alcohol use was wrong or very wrong has remained relatively consistent from 2010 to 2013. While the majority think use of alcohol is wrong, students are more accepting of alcohol use than of cigarette or marijuana use. Just as youth have consistently perceived marijuana use to have a greater risk of harm than cigarettes or alcohol, they have consistently been more disapproving of the use of marijuana. In 2011 the percentage of youth who disapproved of the use of cigarettes or marijuana decreased, but this percentage has since returned to pre-2011 levels.



Summary

- Over 95% of all 4th 9th grade students did not think smoking made them look cool or more grown-up. In addition, most youth (88.7%) did not think that drinking alcohol let them have more fun.
- There were fewer youth in 2013 than in 2010 who expressed positive attitudes toward cigarette and alcohol use.
- Many, but fewer than half of youth reported that they thought most teenagers used cigarettes, alcohol or marijuana. Similarly, many youth thought most adults used substances. Youth thought that more adults used cigarettes and alcohol than teenagers, but thought that teenagers were slightly more likely to use marijuana.
- Youth in the 9th grade were more likely than younger students to think that most teenagers used alcohol and marijuana. Among grade groups, middle school students (6th 8th grade) were less likely to think that most teenagers used cigarettes.
- O Ninth grade students were the most likely to think that most adults drank alcohol; students in the $6^{th} 8^{th}$ grades were less likely to think that adults used any substance.
- o Females were more likely than males to think that most teenagers used alcohol or marijuana.
- Students in grades 4-9 were most likely to indicate that they might use alcohol in the future compared to cigarettes and marijuana. Very few youth reported they might use cigarettes or marijuana when they get older.
- The largest increase in intention to use occurred between the middle and high school grades. Twice as many youth in the 9th grade indicated they might use marijuana than those who indicated they might smoke cigarettes.
- Almost 70% of all students thought cigarettes and alcohol posed a moderate or great risk. A
 higher percentage of these youth thought using marijuana was risky. The majority of 6th 9th
 graders thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a
 prescription posed a moderate to great risk, with use of methamphetamine the most risky.
- \circ Youth in the $6^{th} 8^{th}$ grades were more likely than youth in other grade levels to think the use of cigarettes, alcohol, and marijuana were risky.
- The percentage of youth who think using cigarettes is risky has increased from 2010 to 2013.
- The percentage of youth who perceived moderate or great risk in marijuana use declined slightly in 2012; however in 2013, the percentage increased, returning to the earlier level. Youth have consistently thought marijuana posed more harm than cigarettes or alcohol.
- The majority of SPIRIT youth thought that the use of any substance was wrong. Alcohol was considered the most acceptable. Over 90% of youth in the 6th-9th grades thought use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong.

- As grade level increased, students were less likely to consider the use of substances to be wrong. Alcohol use was considered to be the least wrong by youth in all grade levels.
- The percentage of youth who thought alcohol use was wrong or very wrong has remained relatively consistent from 2010 to 2013. In 2011 the percentage of youth who disapproved of the use of cigarettes or marijuana decreased, but this percentage has since returned to pre-2011 levels.

Chapter 5 - Problem Behavior

Students in $4^{th} - 9^{th}$ grades reported the number of times in the past three months they engaged in aggressive and problem behaviors or were the victims of those behaviors. Over 39% of youth in the $4^{th} - 9^{th}$ grade reported being harassed or bullied within the past three months. Almost 5% reported they were bullied ten or more times.

A similar percentage of youth reported both making fun of others (52.5%) and being made fun of by others (54.9%). Only 12.6% of youth reported spreading rumors about others; however a much larger percentage (36.9%) reported others had spread rumors about them.

The percentage of youth who reported being afraid of being beaten up (17.2%) was approximately the same percentage (16.4%) who were in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (23.1%) or being assaulted by someone else (26.0%). Physical assault includes hitting, pushing, slapping, kicking and shoving when one is not "kidding around."

Very few youth reported using the internet (6.6%) or a cell phone (5.9%) to embarrass or hurt another student or being harassed by another student by internet (7.7%) or cell phone (8.8%). A very small percentage of youth reported using a weapon to threaten or bully another (3.3%) or having a weapon used against them in a similar manner (5.7%).

Those who reported they had been bullied or harassed at least one time in the past three months were more likely to report engaging in and experiencing almost every aggressive and problem behavior more frequently than those who had not been bullied.

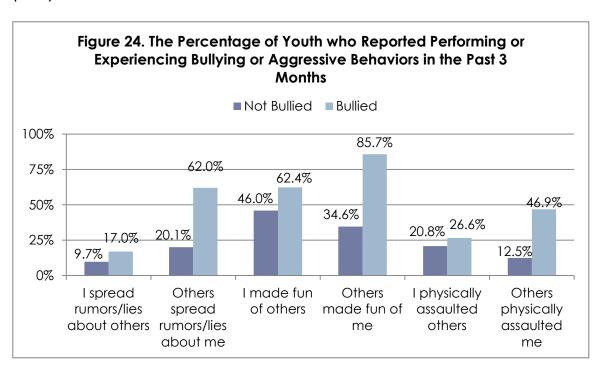
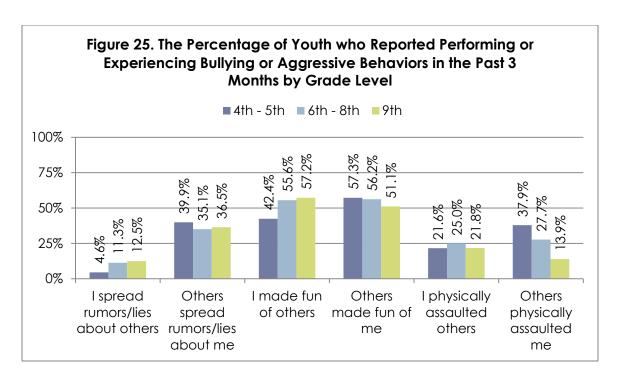
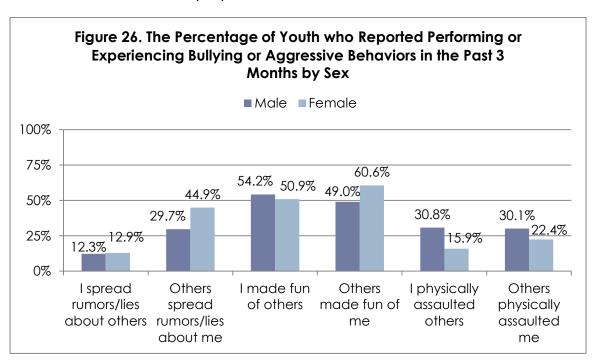


Table 14. Frequency of Problem Behavior in Past 3 months					
	Never	1-2 times	3-5 times	6-9 times	10 or more times
Been harassed or bullied	60.2	25.0	7.3	3.4	4.1
Been afraid of being beaten up	82.8	10.1	3.3	1.4	2.4
Emotional/Relational Problem Behavior					
Made fun of other people	47.5	30.3	9.1	4.4	8.7
Been made fun of	45.1	29.3	9.8	4.7	11.1
Spread mean rumors or lies about other kids at school	87.4	9.5	1.2	0.7	1.2
Had mean rumors or lies spread about you at school	63.1	23.9	5.8	3.2	3.9
Emotional/Relational Problem Behavior through Techn	nology				
Used the Internet to post pictures or text that might embarrass or hurt another student	93.4	4.0	1.2	0.4	1.0
Had pictures or text that embarrassed or hurt you posted through the Internet	92.3	5.7	0.7	0.1	1.3
Used a cell phone to send text messages or pictures that might embarrass or hurt another student	94.1	4.0	0.6	0.3	1.1
Had text or picture cell phone messages sent about you that were embarrassing or hurtful	91.2	5.4	1.5	0.3	1.5
Physically Aggressive Problem Behavior					
Hit/pushed other kids at school when not playing around	76.9	14.8	4.3	1.9	2.0
Been pushed, shoved, slapped, hit or kicked by someone who wasn't just kidding around	74.0	14.5	6.3	1.4	3.7
Been in a physical fight	83.6	12.8	2.2	0.6	0.8
Use of weapons to threaten or bully					
Used any weapon to threaten or bully someone	96.7	2.0	0.3	0.4	0.6
Been threatened or injured with a weapon, such as a gun, knife, or other weapon	94.3	3.7	0.7	0.4	0.8

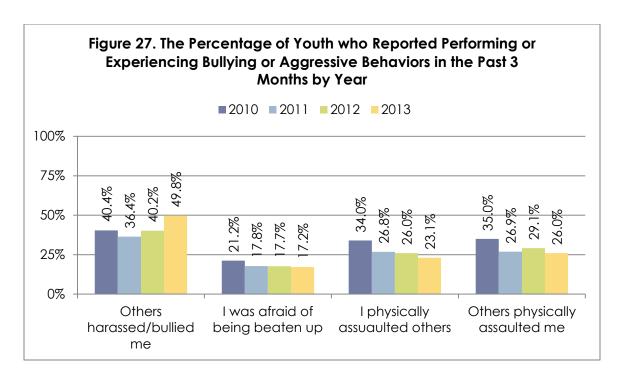
Problem Behavior by Grade Level. The percentage of youth who admitted spreading rumors about and making fun of others is higher among $6^{th}-8^{th}$ grade students than among those in 4^{th} and 5^{th} grade. However, youth are equally as likely, regardless of grade level to report that others spread rumors about them or made fun of them. As grade levels increased, youth were less likely to report that others physically assaulted them. In fact, by 9^{th} grade, students were more likely to report physically assaulting someone else than being assaulted.



Problem Behavior by Sex. Males were more likely than females to report being physically assaulted or physically assaulting others. Females were more likely to report that they were made fun of by others or had rumors spread about them. Interestingly, males and females were just as likely to report that they spread rumors or made fun of other people.



Problem Behavior by Year. There was an increase in the percentage of students who reported being harassed or bullied in the past three months, from 40.4% in 2010 to 49.8% in 2013. The percentage of youth who reported being afraid of being beaten up, however, has remained consistent across this time period. Additionally, the percentage of youth reporting they were physically assaulted or who assaulted others has declined since 2010.



- Over 39% of youth in the 4^{th} 9^{th} grade reported being harassed or bullied within the past three months. Almost 5% reported that they were bullied ten or more times.²⁰
- A similar percentage of youth reported both making fun of others and being made fun of by others. Only 12.6% of youth reported spreading rumors about others; however almost three times more youth reported others had spread rumors about them.
- The percentage of youth who reported being afraid of being beaten up was approximately the same as those who reported being in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student or being assaulted by someone else.
- Very few youth reported using the internet or a cell phone to embarrass or hurt another student, or conversely, being harassed by another student by internet or cell phone.
- A very small percentage of youth reported using a weapon to threaten or bully another or having a weapon used against them in a similar manner.
- Students who reported they had been bullied or harassed at least one time in the past three
 months were more likely to report engaging in and experiencing almost every aggressive and
 problem behavior more frequently than those who had not been bullied.
- O The percentage of youth who admit spreading rumors about others and making fun of others increased from the $4^{th} 5^{th}$ grade level to the $6^{th} 8^{th}$ grade level. However, youth are equally as likely, regardless of grade level to report that others spread rumors about them or made fun of them.

²⁰ Tables and figures showing problem behaviors include students in grades 4-9.

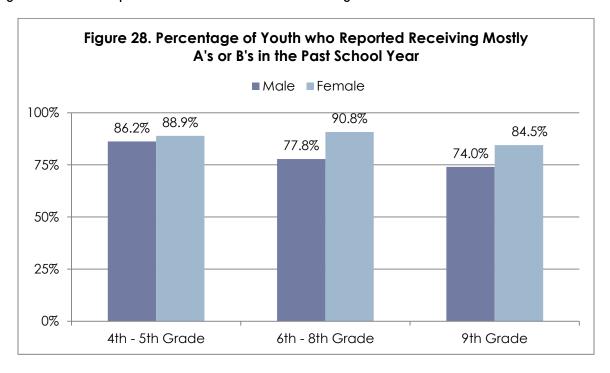
- As grade levels increased, youth were less likely to report that others physically assaulted them.
 In fact, by 9th grade, youth were more likely to report physically assaulting someone else than having been assaulted.
- Males were more likely than females to report having been physically assaulted or physically assaulting others. Females were more likely to report that they were made fun of by others or had rumors spread about them. Interestingly, males and females were just as likely to report that they spread rumors or made fun of other people.
- o From 2010 to 2013, there has been an increase in the percentage of students who reported being harassed or bullied in the past three months. The percentage of youth who reported being afraid of being beaten up, however, has remained consistent across this time period. Additionally, the percentage of youth reporting they were physically assaulted or had assaulted others has declined since 2010.

Chapter 6 - School Performance and Attitudes

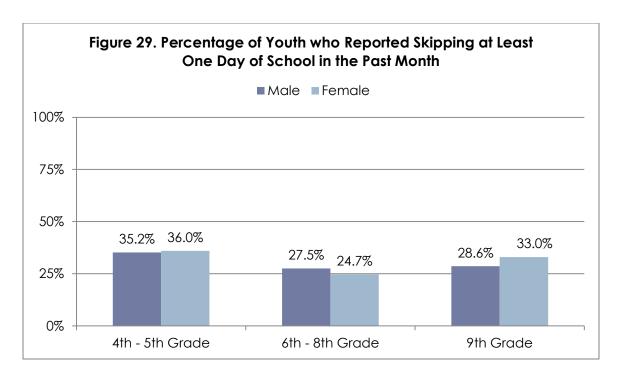
School performance and attitude data were collected from students in $4^{th} - 9^{th}$ grade. They were asked to report their average grades, the number of times they skipped school, and the number of times they received discipline in the form of in-school suspension/detention and out-of-school suspension.

Grades, Absences, & Disciplinary Incidents

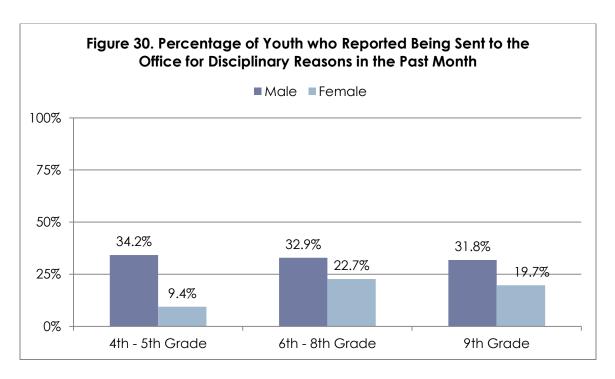
Most students (83.6%) reported their average grades last school year were either A's or B's, slightly higher than in 2010 (80.1%). Regardless of grade, a greater percentage of females (88.2%) reported mostly A's or B's than did males (78.9%). As grade level increased, fewer students reported mostly A's or B's. Among males, the greatest drop in grades occurred between elementary and middle school, whereas among females the drop occurred from middle school to high school.



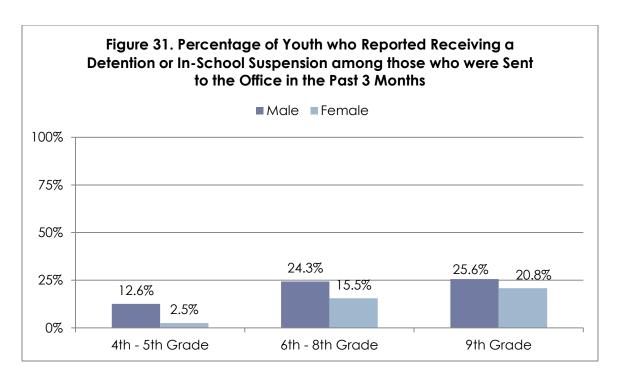
When students were asked how many whole days of school were missed in the past 30 days because they skipped or cut, a lower percentage of students (30.1%) reported missing at least one day compared to those in 2010 (34.2%). Over 11% of students reported skipping three or more days. Surprisingly, fewer youth in $6^{th} - 8^{th}$ grades reported skipping school than those in $4^{th} - 5^{th}$ grades. There was no difference among males between the $6^{th} - 8^{th}$ grades and the 9^{th} grade; however, a greater percentage of females reported skipping school in high school than in middle school. This parallels the report of a drop in academic grades between middle and high school.



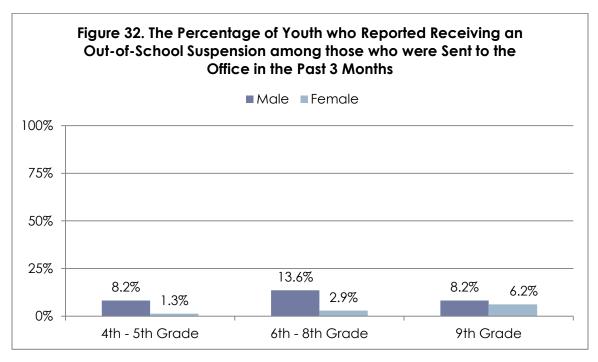
Approximately a quarter (25.4%) of the students reported being sent to the office for disciplinary reasons in the past three months. Regardless of grade level, males (32.9%) were more likely than females (18.1%) to be sent to the office for disciplinary reasons. While the percentage of males sent to the office was relatively consistent across grade levels, females in the $4^{th} - 5^{th}$ grades were the less likely than females in any other grade level to be sent to the office.



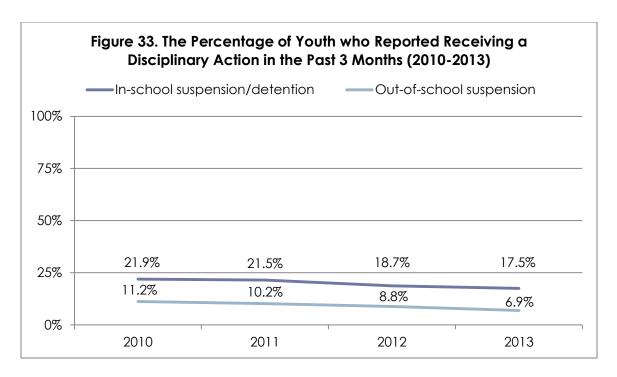
Less than a fifth of students (17.5%) reported receiving in-school suspension or detentions. Again, males (21.5%) were more likely than females (13.8%) to receive in-school suspensions regardless of grade level. The greatest increase in receiving in-school suspensions or detentions was between the 4^{th} - 5^{th} grade level and the 6^{th} – 8^{th} grade level.



Approximately 7% of students received an out-of-school suspension. As with other disciplinary actions, males (10.5%) were more likely than females (3.6%) to have received an out-of-school suspension. The greatest percentage of males who received these was in the $6^{th}-8^{th}$ grade, whereas females were most likely to receive a suspension in the 9^{th} grade.



Over time, the percentage of youth who reported receiving any disciplinary action is trending downward. In-school suspension or detention decreased from 21.9% in 2010 to 17.5% in 2013. Over 11% of students reported receiving an out-of-school suspension in 2010 and less than 7% reported being suspended in 2013.



Attitudes toward School

Attitudes toward school of $4^{th} - 9^{th}$ grade students were reported by the extent to which they agreed or disagreed with statements concerning their happiness, safety, and connectedness. The majority of youth responded positively to each question. They were most likely to agree or strongly agree they feel safe going to or from school (88.5%) and least likely to think teachers treated them fairly (72.9%).

Table 15. Attitudes toward School (4 th – 9 th grades)					
	Strongly Disagree	Disagree	Agree	Strongly Agree	
I feel close to people at this school.	3.3	12.3	59.1	25.4	
I am happy to be at this school.	8.5	14.4	48.1	29.1	
I feel like I am a part of this school.	4.9	13.3	52.5	29.3	
The teachers at this school treat students fairly.	8.5	18.6	46.8	26.1	
I feel safe at this school.	5.1	11. <i>7</i>	48.0	35.2	
I feel safe going to and from this school.	4.3	7.3	51.3	37.2	

Attitudes toward School by Sex. Males and females expressed similar attitudes toward school.

Attitudes toward School by Grade Level. In general, the higher the grade level the less positive youth felt toward school. Happiness at school and feeling safe at school steadily decreased with each grade level. Feeling close to people at school, feeling like a part of the school, and feeling safe going to and from school decreased at the 9^{th} grade level. Thinking that teachers treat students fairly decreased at the middle school level ($6^{th} - 8^{th}$ grade).

Table 16. Attitudes toward School by Grade Level (Agree and Strongly Agree, combined Percentages)						
4th- 5th Grade 6th- 8th Grade 9th Grade						
I feel close to people at this school.	86.8	86.3	80.0			
I am happy to be at this school.	87.4	76.2	69.8			
I feel like I am a part of this school.	89.5	82.8	74.0			
The teachers at this school treat students fairly.	84.5	69.7	67.2			
I feel safe at this school.	90.1	86.9	72.6			
I feel safe going to and from this school.	88.0	91.4	85.0			

- Most students reported their average grades last school year were either A's or B's, slightly higher than in 2010. Regardless of grade, a greater percentage of females reported mostly A's or B's than did males.
- As grade level increased, fewer students reported mostly A's or B's. However, among males, the
 greatest drop in grades occurred between elementary and middle school, whereas among
 females the drop occurred from middle school to high school.
- When they were asked how many whole days of school were missed in the past 30 days because they skipped or cut, fewer reported missing at least one day in 2013 compared to 2010. Fewer youth in 6th – 8th grades reported skipping school than youth in 4th – 5th grades.
- A greater percentage of females reported skipping school in high school than in middle school.
 This parallels the report of a drop in academic grades between middle and high school.
- Approximately a quarter of students reported being sent to the office for disciplinary reasons in the past three months. Regardless of grade level, males were much more likely than females to be sent to the office for this.
- Less than a fifth of students reported receiving in-school suspension or detentions. Again, males were more likely than females to receive in-school suspensions, regardless of grade level.
- The greatest increase in receiving in-school suspensions or detentions was between the 4th-5th grade level and the 6th 8th grade level.
- Very few students received an out-of-school suspension. As with other disciplinary actions, males were more likely than females to have received an out-of-school suspension.
- The greatest percentage of males who received an out-of-school suspension was in the 6th − 8th grade, whereas females were most likely to receive a suspension in the 9th grade.
- Students in 4th-9th grades were most likely to agree or strongly agree they feel safe going to or from school and least likely to think teachers treated them fairly.
- In general, the higher the grade level the less positive youth felt toward school; specifically, happiness at school and feeling safe at school steadily decreased at each grade level.

0	Feeling close to people at school, feeling like a part of the school, and feeling safe going to and from school decreased at the 9^{th} grade level. Thinking that teachers treat students fairly decreased at the middle school level ($6^{th} - 8^{th}$ grade).	
	()	

Chapter 7 - Program Effectiveness

Students in $4^{th} - 9^{th}$ grades were asked to report both the extent to which they felt the prevention program implemented in their school affected their behavior and their level of satisfaction with the SPIRIT program. When asked if they liked the program, the large majority of students responded that they liked it at least a little. Similar to responses in previous years, youth were most likely to report that the program helped them with resistance skills and that the time spent on the program was helpful. Students thought the program was least effective in helping others be nicer to them, with only slightly over half (51.8%) agreeing with that statement.

Table 17. Effectiveness of and Satisfaction with SPIRIT (4 th - 9 th grades)					
	No, not at all No, not much Yes, a little Yes, a				
Did you like the program?	6.4	11.5	46.3	35.7	
Did the program teach you what to do when you are angry?	9.6	15.2	35.5	39.7	
Do you act better because of the program?	11.1	18.8	39.8	30.3	
Did the program help you feel better about yourself?	11. <i>7</i>	16.9	36.0	35.5	
Does the program help you to say no to harmful things other kids might want you to do?	5.9	10.6	31.6	48.9	
Has the program helped you to get along better with other people?	12.0	18. <i>7</i>	38.3	31.0	
Are other kids nicer to you because of the program?	21.7	26.5	30.1	21.7	
Was the time spent on the program helpful?	9.1	8.8	42.6	39.5	

Program Effectiveness by Grade Level. In general, as grade level increased youth were less likely to be satisfied with the program and think it was effective. The largest drop in perceived effectiveness occurred at the 9th grade level, particularly in regard to the effect of the program on relationships and behavior.

Table 18. Effectiveness of and Satisfaction with SPIRIT by Grade Level (Yes, a lot & Yes, a little, combined Percentages)					
	4 th – 5 th Grade	6 th — 8 th Grade	9 th Grade		
Did you like the program?	89.7	82.9	74.5		
Did the program teach you what to do when you are angry?	77.8	<i>77</i> .1	70.4		
Do you act better because of the program?	80.9	71.3	59.1		
Did the program help you feel better about yourself?	78.4	74.0	62.3		
Does the program help you to say no to harmful things other kids might want you to do?	86.8	82.9	72.2		
Has the program helped you to get along better with other people?	79.9	70.0	59.1		
Are other kids nicer to you because of the program?	59.3	56.2	40.5		
Was the time spent on the program helpful?	86.9	84.3	75.3		

Program Effectiveness by Sex. Males and females felt similarly about the program's appeal and effectiveness. However, males were more likely than females to think other youth were nicer to them because of the program.

Table 19. Effectiveness of and Satisfaction with SPIRIT by Sex (4 th – 9 th grades; Yes, a lot & Yes, a little, combined Percentages)					
	Male	Female			
Did you like the program?	81.6	82.4			
Did the program teach you what to do when you are angry?	75.9	74.4			
Do you act better because of the program?	71.1	68.9			
Did the program help you feel better about yourself?	72.7	70.3			
Does the program help you to say no to harmful things other kids might want you to do?	80.2	80.7			
Has the program helped you to get along better with other people?	71.1	67.3			
Are other kids nicer to you because of the program?	56.6	47.3			
Was the time spent on the program helpful?	83.1	80.9			

- When asked if they liked the program, the vast majority of students responded that they liked it at least a little. Similar to previous years, youth were most likely to report that the program helped them with resistance skills and that the time spent on the program was helpful. Students thought the program was least effective in helping others be nicer to them.
- In general, as grade level increased youth were less likely to be satisfied with the program and think it was effective. The largest drop in perceived effectiveness occurred at the 9th grade level, particularly in regard to the programs' ability to affect relationships and behavior.
- In general, males and females felt similarly about the program in terms of its appeal and effectiveness. However, males were more likely than females to think other kids were nicer to them because of the program.

Chapter 8 - Protective Factors

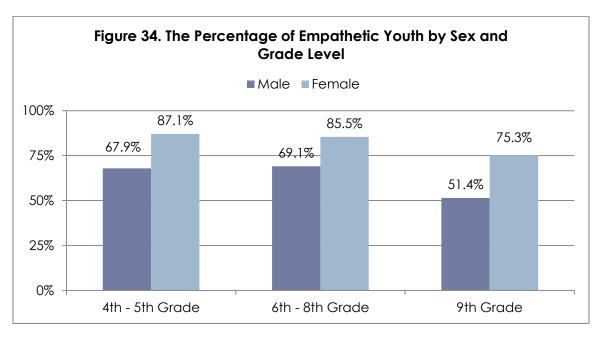
Youth who have strong decision making skills, high levels of empathy, and feel connected to and cared for by adults in their lives are less likely to act aggressively, bully others, or to start using alcohol, tobacco, and other drugs. These protective factors help to form a barrier against destructive behaviors. Youth in the $4^{th}-9^{th}$ grades were asked to report their empathy, decision-making skills, and their perception about whether adults in their lives cared about them.

Empathy

The majority of students reported strong levels of empathy. They reported being sad if witnessing an animal being hurt (88.5%), feeling sad if someone was left out (81.3%), and feeling bad if someone else got their feelings hurt (83.8%).

Table 20. Youth Capacity for Empathy (4 th — 9 th grades)				
	Strongly Disagree	Disagree	Agree	Strongly Agree
It makes me sad if I see someone who is left out.	3.9	14.8	51.9	29.4
I get upset when I see an animal being hurt.	3.3	8.3	35.5	53.0
I feel bad when someone else gets their feelings hurt.	3.0	13.2	<i>5</i> 1. <i>7</i>	32.1

Empathy by Sex & Grade Level. About 73% percent of the students agreed or strongly agreed with every empathy question. Regardless of grade level, there were fewer empathetic males than females. The percentage of empathetic females and males remained steady throughout the elementary and middle school levels, but dropped by the 9th grade.

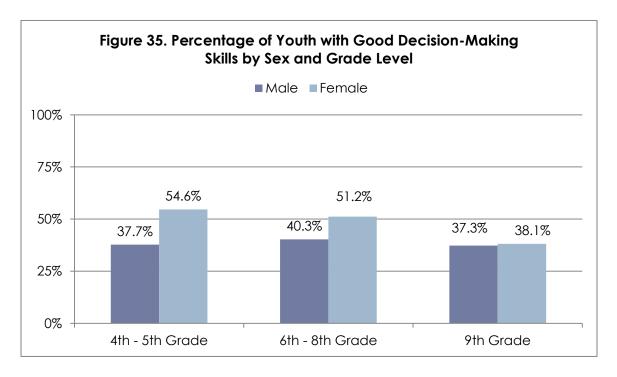


Decision Making

A greater percentage of $4^{th} - 9^{th}$ grade youth reported making good decisions (82.3%) than thinking about their choices (63.3%), how their decisions would affect others (61.2%), and the consequences of their decisions (65.3%).

Table 21. Youth Decision Making Skills (4 th – 9 th grades)				
	Never	Sometimes but not Often	Often	All the Time
How often do you stop to think about your choices before you make a decision?	3.6	33.0	50.6	12.7
How often do you stop to think about how your decisions may affect others' feelings?	6.2	32.6	43.5	17.7
How often do you stop to think about all of the things that may happen as a result of your decisions?	5.8	29.0	46.3	19.0
How often do you make good decisions?	1.5	16.1	65.4	16.9

Decision Making by Sex & Grade Level. Over 43% of students answered "often" or "all the time" to every decision-making statement. Among youth in the $4^{th}-5^{th}$ grades and the $6^{th}-8^{th}$ grade level, a greater percentage of females than males reported good decision-making skills in all aspects measured. Whereas the percentage of males reporting good decision-making skills was similar across all grade levels, the percentage of females dropped to the same percentages as males by the 9^{th} grade.

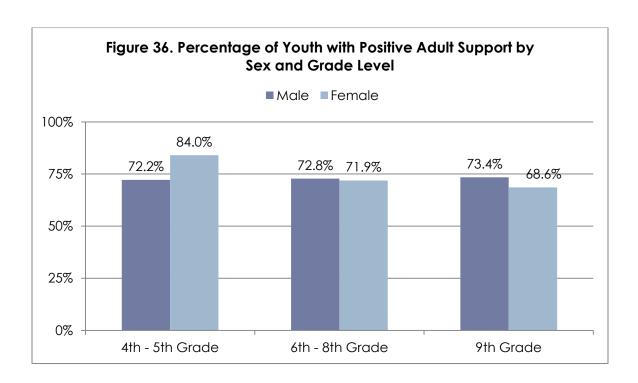


Caring Adults

Youth in $4^{th} - 9^{th}$ grades were asked to indicate the extent to which they thought adults in their lives, both at school and at home, were supportive of them and listened to them. The majority of students reported the presence of caring adults in their lives. However, a greater percentage of youth reported the presence of caring adults in their home (89-90%) than in school (84-86%).

Table 22. Presence of Caring Adults (4th — 9th grades)					
	Strongly Disagree	Disagree	Agree	Strongly Agree	
At school, there is a teacher or another adult whom I can go to if something is really bothering me.	6.0	10.3	43.4	40.4	
At school, there is a teacher or another adult who listens to me when I have something to say.	4.6	9.0	49.9	36.5	
At home, there is a parent or another adult whom I can go to if something is really bothering me.	3.1	6.5	34.8	55.6	
At home, there is a parent or another adult who listens to me when I have something to say.	3.3	7.6	36.1	53.0	

Caring Adults by Sex & Grade Level. Almost three-fourths of the students answered "agree" or "strongly agree" to every statement about caring adults (73.7%). At the $4^{th}-5^{th}$ grade level, more females than males reported the presence of caring adults. Although the percentage of males reporting the presence of caring adults remained steady through each grade level (72-73%), the percentage of females declined from 84% in the $4^{th}-5^{th}$ grades to 68.6% in the 9^{th} grade.



- Overall, around three-fourths of students agreed with statements about feeling empathy.
 Regardless of grade level, there were fewer empathetic males than females.
- Specifically, students reported being sad if witnessing an animal being hurt, feeling sad if someone was left out, and feeling bad if someone else got their feelings hurt.
- \circ A greater percentage of 4^{th} 9^{th} grade youth reported making good decisions than thinking about their choices, how their decisions would affect others, and the consequences of their decisions.
- O Among youth in the $4^{th} 5^{th}$ grades and the $6^{th} 8^{th}$ grade level, a greater percentage of females than males reported good decision making skills in all aspects measured. Whereas the percentage of males reporting good decision making skills was similar across all grade levels, the percentage of females dropped to the same as males by the 9^{th} grade.
- The vast majority of students reported the presence of caring adults in their lives. However, a
 greater percentage of youth reported the presence of caring adults in their home than in school.
- \circ At the 4th 5th grade level, more females than males reported the presence of caring adults. The percentage of males reporting the presence of caring adults remained steady through each grade level whereas the percentage of females declined by grade level.

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